

In the Claims:

Listing of Claims:

Claims 1 - 11 (cancelled)

12.(new) A measuring system for an agricultural harvesting machine having a crop processor for separating grain from a flow of crop material, the measuring system comprising:

a dosing device for adding a defined amount of additional grain only to the crop material flowing into the crop processor;

a grain sensor arranged at an output side of the crop processor so that separated grain impinges upon the sensor, the grain sensor generating a normal grain flow signal when the dosing device is inoperative, and the grain sensor generating an increased grain flow signal when the dosing device is adding grain to the crop material being processed by the crop processor; and

an evaluation device connected to the grain sensor, the evaluation device calibrating the grain sensor as a function of the normal grain flow signal and the increased grain flow signal.

13. (new) The measuring system of claim 12, wherein:  
the crop processor is a threshing cylinder.

14. (new) The measuring system of claim 12, wherein:  
the crop processor is a straw walker.

15. (new) The measuring system of claim 13, wherein:  
a feeder house transports crop material to the threshing cylinder, the dosing device supplying grain to the feeder house.